DOCUMENT RESUME

ED 194 932 CS 503 134

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TITLE Using the Functional Prerequisites to Communication Rules as a Structure for Rule-Behavior Research.
PUB DATE May 80
NOTE 33p.: Paper presented at the Annual Meeting of the International Communication Association (30th, Acapulco, Mexico, May 18-23, 1980).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Behavioral Science Research: *Communication Research: *Research Methodology: *Speech Communication

ABSTRACT

This paper points out that the available research on communication rules tends to be descriptive (or humanistic) in nature and characterized by a conspicuous absence of prediction along with experimental methods and parametric interpretations of social behavior. The paper first argues that current scientific methodology is consistent with a humanistic view of human behavior. It next suggests the moderator variable approach as a predictive method that captures the contingency-like nature of communication rules. In conclusion, it offers a structure for conducting rules research that uncovers theoretically relevant, intervening variables. (FL)

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Using the Functional Prerequisites to Communication Rules as a Structure for Rule-Behavior Research

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Presented to the Interpersonal Division of I.C.A. in Acapulco, Mexico, May, 1980.

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On the fundamental Kantian versus Lockean debate over whether the mind can actively contribute to experience, most rules theorists assume the distinct minority position of Kant which is mind as pro forma rather than tabula rasa. Subscribers to a Kantian view are often called teleologists or humanists. To many teleologists, rigorous scientific methodologies that employ prediction and control (e.g. experimentation) are inconsistent with a telic view of behavior because of the presumption of causality inferred within scientific methods. Thus, many elect descriptive, humanistic methods for investigation. The research on communication rules is no exception.

In recent years the "rules approach" to studying communication behavior has taken hold (Cushman and Whiting, 1972; Sanders, 1973; Pearce, 1976; Cushman & Pearce, 1977; Cronen & Pearce, 1978). Yet, relatively little in the way of empirical research has been generated. The available research tends to be descriptive in nature (Philipsen, 1975; Frentz and Farrell, 1976; Boynton and Pearce, 1977; Boynton and Fairhurst, 1978) and is characterized by a conspicuous absence of prediction along with experimental methods and parametric interpretations of social behavior.[2]

The purpose of this paper is to: 1) argue that current scientific methodology is consistent with a teleological view of human behavior, 2) suggest a predictive method that captures the contingency-like nature of communication rules, and 3) provide researchers with a structure for doing rules research that uncovers theoretically relevant variables.

Views on the Scientific Method

Three conventional classes of rules theories have been distinguished in the literature: the normative, interpretationist, and linguistic prespectives (Cushman, 1977). Their individual attitudes toward the scientific method is best reflected in their views on prediction. From the normative perspective, Pearce and Cushman (1976) and Cushman (1977) argue prediction should not be a necessary criterion of theoretical verification and thus relegate the prediction of behavior to a minor role. Pearce and Cushman (1976, p.7) state, "The possibility of violation accounts for the unique character of rules research." This is interpreted to mean that because rules theories admit deviation as much as they do conformity, validity coefficients stand to be lowered.[3]

From the interpretationist perspective, Harré (1977) objects to making a rule into a continuous variable (e.g. operationalized in terms of rule strength) which predicted to some behavioral criterion also operationalized along some dimension. Such processes smack too much of parametric analyses (i.e. those consisting of describing functional relationships between variables) which assumes that the properties referred to by variables "are not internally related, that is, they can be varied separately while retaining their identity" (Harré, 1977, p. 286). Harré prefers a structural analysis whereby the rules that purportedly were internalized and guided behavior are inferred from behavior, which is ex post facto explanation. According to Harré, one cannot abstract a rule, or any aspect of a rule, from the structure that generated it because a rule takes on meaning by virtue of its relationship to other parts of the structure.

From the linguistic perspective, Frentz and Farrell's (1976) view is not unlike Harré's rejection of positivistic assumptions and parametric analyses. They argue that their language-action paradigm invites a participant observation methodology and a new attitude towards research. "Objectively must be subordinated to a synthesis of sensitive experience and thoughtful reflection as the basis for an adequate theory of communication" (Frentz and Farrell, 1976, p. 348). Prediction as a criteria for evaluating theory is replaced by judgment which echoes Collett's (1977, p.20) position that ". . . it is merely sufficient that they (rules) serve as a subjective yardstick in the evaluation behavior, that they encapsulate cultural notions about correct and incorrect ways of doing things."

Clearly, many of the objections to prediction are not unfounded. First, in gaining familiarity with a system one quickly learns that rules exist on many levels of abstraction. Selecting certain of those to study through prediction may prove problematic. Some rules are difficult to predict because of the way they are known. From Collett (1977) and Fisher (1974) we know that there is more than one type of rule knowledge. Tapping anything other than conscious rule knowledge poses enormous methodological problems. Still other rules, like general social norms, tend to be such vague guides for behavior that it is difficult to assess their influence particularly if that influence combines with other unidentified norms or non-normative factors (Schwartz, 1977). Also, individuals differ in the degree to which they embrace even widespread social norms as well as the sanctions to which they attend (Schwartz and Howard, In Press). Second, post-hoc descriptive research ususally allows for a more

wholistic analysis of events by making more contextual information available as data. Third, the early stages of the investigation of any phenomena should be directed towards trying to describe how the system operates. That is, one must be somewhat familiar with a system in order to make predictions about it.

The foregoing arguements eschewing prediction are persuasive. Unfortunately, the a priori adoption of this viewpoint and the consequent methodological conventionality is unwarranted and as dangerous to the study of rules as the psychologists who came to view the world as one big 2 x 2 design. It is methodological monism pure and simple, just a different law of the hammer (Cappella, 1977). It will be detrimental to the study of rules because the methodological conventionality guides theoretical choices and observational strategies (Hewes, 1978). It is already doing this. For example, even though rules researchers fully admit to the posibility of rule violation, such questions as: 1) why is there variability in compliance to rules, 2) why do people choose not to follow rules, and 3) what happens when a person is subject to multiple normative influences, to name only a few, are not easily explained by a rule following model (Schlenker, 1977). This is because the general observational strategies have a tendency to catalogue social conventions and focus on "how" questions rather than "why" questions (Wilson, 1970; Pearce, 1976) because "why" questions intimate cause which is a devil term to rules theorists albeit largely misunderstood.

Aristotle set forth four meanings for the term "cause:" 1) material cause (substance as cause); 2) efficient cause (impetus in events as cause); 3) formal cause (pattern as cause); and 4) final cause (intention as cause). Ever since Newtonian science,

the prevailing view of causality has been in efficient cause terms, which is cause-effect occurence over time. This led to a theory-method confound that continues today. Rychlak (1977, p. 169) explains the source of this confound:

> "Later, in Newtonian science, the uncritical acceptance of empirical data without sophisticated study of assumptions led to "theorization" of scientific method--that is, the assumptions of the method were projected onto the world as a necessary characteristic and then "proved so" by the results of this very same method (Burtt, 1955, p. 229)."

The confounding was facilitated by the fact that both stimulus-response theory and the independent-dependent variable relationship in experimentation can be thought of in exclusively efficient-cause terms even though the independent-dependent variable sequence was first introduced as a mathematical function with formal cause properties (Rychlak, 1977). Formal cause properties means that the assignment of a value for the independent variable automatically assumes a value for the dependent variable because of the function defining the relationship between them. Note nothing about a time dimension is presumed.

Thus to confuse the independent variable with the stimulus and the dependent variable with the response is to (incorrectly) attribute a time dimension to every independent-dependent variable relationship and every description of behavior falling under these labels. Indeed, Rychlak notes that the attribution of a time dimension had to be done in order to account for the independent-dependent variable sequence as an antecedent-consequent flow of events.

Given this theory-method confound and the view of causality solely in efficient cause terms, it is not diffecult to see why prediction and rigorous scientific methods are almost exclusively associated with a positivistic view and why many rules theorists eschew "notions of causality." It appears that many researchers have confused the interpretive process of understanding data with the structure of explanation (Hewes, 1979). Harré is a case in point because of his strict dichotomizing of parametric and structural interpretations of behavior along positivistic and humanistic lines respectively. His confounding of parametric interpretations with causal or mechanistic explanations is most apparent when he refers to the classical paradigm as the "parametric sciences" which is a methodological label for a body of theory!

Accordingly, rules researchers need to take note of the following:

1) To suggest an actor's behavior is influenced by environmental variables does not presume a positivistic position. There are other forms of causation besides efficient causality. For example, it is possible to describe functional relationships (as in a mathematical sense - denoting formal cause) between variables which are summary descriptions of observed regularities (Schlenker, 1977).

2) There is nothing inherent in the data of experimentation that signifies one and only one theoretical explanation must be used to account for the structure of the data. In fact, the theoretical explanation that is adopted is really dependent upon the perspective one assumes. If the perspective is one of a third person, looking outward in an observer-like fashion as most

positivistic accounts are, efficient and material causes are appropriate to explain the structure of the data. However, if the perspective is in first person terms, explained from the perceiver's perspective as most teleological accounts are, formal and final causes are appropriate to explain the structure of the data (Rychlak, 1977). Because the theoretical explanation depends on whether behavior is viewed from within or without, so-called "rational" (i.e. formal and final causes) and "causal" (i.e. material and efficient causes) explanations are not in competition with one another (Toulmin, 1970).

3) The occurrence of interactions by supposedly independent parameters does not immediately suggest situations cannot be described by parametric means, therefore, a priori rejection of parametric analysses should be abandoned (Schlenker, 1977). Advances are being made in the measurement of interaction models that go beyond the rather static analysis of variance approach to measure the processural nature of interaction (see Howard, 1979).

4) Parametric and structural interpretations are not mutually exclusive. Rule governed phenomena can and should be conceptualized in both parametric and structural terms because one approach offers advantages the other does not have. Structural interpretations derive their richness from making more contextual information available as data, while parametric interpretations excel in more precise and objective procedures.

To summarize, the current methodological conventionality generated by the available rules research need not obtain. As Hewes (1978) recently advanced, researchers should have the widest number of methods available to aid their choice of the "best

representational system for their phenomena." Both scientific and humanistic methods have their place in rules research and one should not abandon the other on *a priori* grounds.

Moderator Variables - A Parametric Alternative

Perhaps a major deterrent to seeing rules in a predictive relationship with behavior is because of their contingency-like or "it depends" nature which implies some type of interaction. Parametric methods exist to handle such interactions. For example, as a result of discontent with the classic validation model which provided a simple index of the relationship between a predictor and a criterion, newer strategies for validation of predictors which did not ignore intervening factors were sought (Zedeck, 1971). One such strategy, the moderator variable approach, identifies homogeneous sets of individuals, either through psychometric manipulation or classification procedures, for whom the predictors are differentially valid (Saunders, 1956; Ghiselli, 1963; Marks, 1964; Zedeck, 1971). When a sample is split according to how they align on the moderator variable, the validity coefficient for part of the sample is much greater than for the other part(s).

Employment of moderator variables may be useful for rules research because of their ability to take into account the contingencies inherent in rules. Contingencies arise from the variance found within situations and samples. If the appropriate moderator variables are chosen, they can distinguish those individuals for whom rules would be predictive of behavior and those for whom rules would not.

As a result, moderator variables allow rules researchers to test the proposition that rules are antecedents of behavior. For example, Adler (1978) states that a primary difference between a laws and a rules explanation is that rules are an important antecedent for a relationship. Empirically, only two reasons could account for an actor's failure to coordinate behavior in the expected manner from a teleological perspective. The first reason states an actor lacked knowledge of the rule, and the second states an actor willfully violated the rule because of a weak enforcement mechanism. "Either of these failures to coordinate would result in indeterminacy in prediction and would require additional evidence for the falsification of rules propositions" (Adler, 1978, p. 434). Positing these two reasons as moderator variables and dividing the sample according to how they align on the variables generates falsifiable relationships consistent with Popper's (1961) criteria for testing theory. Further, testing both moderator variables as alternative hypotheses is consistent with Platt's (1964) procedures for strong inference. Suport can be lent to Cushman and Pearce's rules theory because the proposition that rules are an important antecedent of behavior can be falsified. Further, their theory is strengthened if both alternative hypotheses have been tested.

Also to be considered is Cronen and Davis' (1978, p.125) assertion that laws, systems, and rules cannot reasonably be considered alternative explanations: "We would argue that viable theories could and currently do involve the interpenetration of different kinds of explanation." Their rationale for this position comes in part from Toulmin's (1974) view that there is no single

step separating rules from laws and the production of certain behaviors at a higher level of functioning is made possible by the embeddedness of assumed lawful principles. This would suggest that lack of rule knowledge and the willful violation of rules as a result of a weak enforcement mechanism may be only two of many moderator variables.

While a "consistency assumption" has yet to emerge for the rule-behavior relationship, it is instructive to note that attitude researchers successfully employed moderator variables in attempting to resolve the well known inconsistency between attitudes and behavior (Ehrlich, 1969; Albrecht, DeFleur and Warner, 1972; Sample and Warland, 1973). The "contingency approach" is also an increasingly popular perspective among organizational researchers (Dennis, Goldhaber and Yates, 1978). The approach that attitude and organizational researchers have been taking supports Marks' (1964) position on theory construction. Specifically, viable approaches to theory construction can emerge by dwelling on what is not explained by a theory rather than what is already explained. The message is instructive. Indeterminacy in a functional relationship is never so apparent as when one's predictions fail. Focusing on moderator variables forces one into the realm of trying to account for heretofore unexplained criterion variance.

There is more than one moderator technique, some of which are the object of controversy (McNemar, 1969). Thus, the reader is urged to consult the literature regarding moderator variables when contemplating research in this vein. Zedeck's (1971) article is perhaps the best starting place.

One further qualification is in order. The "moderator approach" is not offered as a methodological solution to the theoretical problems currently surrounding rules. The theoretical utility of moderator variables is linked to the theoretical structure from which they are derived. In keeping with this, the following structure for doing rules research is offered.

The Functional Prerequisites to Rule Enactment

Assuming the value in finding moderator variables, the next question concerns where to look for such variables. Logic suggests locating the functional prerequisites to rule enactment (Cf. Cappella, 1972). Indeed, Schwartz (1977) uncovered intervening variables by doing just that. Functional prerequisites are defined as the minimally necessary conditions for a rule to become instantiated in concrete behavior. If a prerequisite is not met, rule enactment would be blocked. The relative presence or absence of a prerequisite then becomes a basis for discriminating between rule predictive and rule non-predictive groups.

The prerequisites will change with the nature of the rule under consideration and the capabilities of the actor to mediate reality. For example, as Toulmin (1974) noted, all rules are not uniformly alike; they may vary along a complexity dimension (i.e. lawful physiological regularities to rational, self-critical performances). The level of information processing will also vary with the level of the rule's complexity since rules are structures for processing information (Schroder, Driver and Streufert, 1975). Finally, actors are not alike in their information processing and

decision making capabilities because they enter situations with a unique history, cognitive makeup, and individual temperments.

Given the wide variance in the complexity of rules and the information processing capabilities of actors, the task of articulating a set of functional prerequisites is a formidable one. Obviously, a definitive set of requirements only becomes possible once the content of a rule or rule sequence has been established and a sample has been located.

To date, there has really been only one comprehensive attempt to study rules by locating its functional prerequisites. This is Shalom Schwartz's (1977) work on normative influences on altruism. The functional requirements were the source of two intervening variables, awareness of consequences and responsibility denial, which were found to moderate the norm-behavior relationship. Schwartz's model is highly recommended for anyone doing research in this vein.

It is this author's view that rules researchers could benefit from a set of very general requirements as a structure for doing rules research. It will become apparent that even at a very general level, theoretically-relevant, intervening variables suggest themselves. The researcher's task is to locate the level of complexity of his/her own rule phenomena and reconstruct its functional prerequisites in order to generate relevant moderator variables. That task should be made easier by the examples given in this paper. It must be recognized again that the examples are very general because the prerequisites are posited without equal attention to the many levels of complexity rules may assume, without knowledge of rule content, and without explicit consideration

given to a sample's cognitive makeup. As stated before, all three of these factors have decisive implications for the testable relationships which are generated.

One could posit a set of functional requirements for all of Toulmin's seven levels of rule complexity. While an examination of all seven levels of rules might be appropriate for philosophical discussions regarding whether or not rules are a sub-species of natural laws, most discussions of communication rules presume some degree of rationality. However, there are still distinctions to be made amongst more or less rational rule-following behaviors. A major distinction with regard to the prediction of behavior centers around the level of information processing required to instantiate rules in behavior. The more complex the level of information processing involved, the more variability introduced in the number and kind of alternative outcomes. This subjects the rule-behavior relationship to influence by many more moderator variables.

Thus, it is possible to distinguish rules which can be instantiated in concrete behavior without recourse to "having to think" from rules which require thought and creativity. In the former instance, rules are merely activated, in the latter they are constructed. These are not dichotomous processes; for example, the conscious and/or critical applications of rules may be considered intermediary processes. Because the goal here is to present a set of very functional requirements, it appears logical to do so for two examples of rule-following behavior, one that minimizes rationality (hereafter, termed rule activation) and one that maximizes rationality (hereafter, termed rule construction). The functional

prerequisites for each are idealized descriptions which may exaggerate their differences slightly as a heuristic device (Bierstedt, 1960) lest their true differences be minimized.

Rule activation is a lot like Langer, Blank and Chanowitz's (1978) notion of scripting. An a priori set of rules exists which the actor has instantiated in his/her behavior many times. After a rule becomes a part of an actor's repetroire, subsequent response to its cueing is reactive and mindless--"mindless in the sense that attention is not paid precisely to those substantive elements that are relevant for the successful resolution of the situation" (Langer, et al., 1978, p.636). Langer, et al. have found support to suggest that there is a sustained attention to the recurring structural aspects (i.e. paralinguistic features) of a message and decreased attention to the recurring semantics of a message.

In three experiments involving both oral and written communication, they were able to elicit compliance to a request solely on the basis of its syntax regardless of whether the message content was semantically sensible. This suggests that once a rule is part of an actor's repetroire (i.e. has been repeatedly enacted), the level of information processing becomes less complex because new information is ignored. Specifically, semantic information is ignored because it is assumed to be already known. It is already known because it has been seen repeatedly in the past and the recurring syntactical features of the message suggest this situation is like the last. Thus, the rules for information processing become static structures with fixed procedures which are minimally modifiable (Schroder, et. al., 1975).

Even though this mindless reaction to cueing was once mindful, this does not suggest rational activity has suddenly turned irrational. Such dichotomous thinking underestimates the rational components of this type of behavior, obscurred though it may be. Langer, et. al. prefer to categorize mindless behavior as arational, yet systematic.

Rule Construction does not presume the a priori existence of a rule, only more general rule, value and sentiment structures which permit the situated construction of a rule. Every rule specifies some information about the situation to which it applies. Whenever this information is incomplete, the actor is left to decide: 1) what more general rule, value, and sentiment structures apply to this situation, and 2) how these structures could be amended to make them "fit" the specific of the situation at hand, hence the term "situated construction." That we must frequently engage in situated rule constructions is evident because a complete normative specification for every situation we are in is virtually impossible.

In Piaget's account of cognitive development, global behavior patterns like grasping and sucking are differentiated into "an increasingly complex network of related schemas" (Feffer, 1970). In the same way, more general rule, value, and sentiment structures are repeatedly differentiated into a network of related expectations. For example, Schwartz and Howard (In Press, p.18) define personal norms as "situated representations of the cognitive and affective implications of values for behavior."

Rule construction calls for proactive behaviors on the part of actors. The rules for information processing are emergent

structures with complex, exploratory, critical, and creative procedures (i.e. many perspectives may occur) which can generate new rules (Schroder, et. al., 1975).

Table 1, presents the functional prerequisites to rule enactment for rules that are activated (Column 1) and for rules that are constructed (Column 2). Again, the necessity of the prerequisites is established by demonstrating that the production of rule conforming behavior is blocked when any of those conditions fails to obtain. It is in considering the reasons for the absence of a condition that moderator variables are generated.

Each condition under both processes will be discussed along with the moderator variables that suggest testable relationships.

Table 1[4]

Rule Activation	Rule Construction
1. Cue recognition	1. Capacity to engage in complex information processing which includes: a. Increased attention to cue information b. Availability of extra-communication sources of information c. Ability to feedback informa
2. Sufficient rule knowledge such that a rule is activated as part of the behavioral choices	2. Sufficient rule knowledge such that a rule can be constructed from existing hierarchical rul structures
3. Near optimal level of motivation	3. Near optimal level of motivati as a result of goal directedne
4. Sufficient Ability	4. Sufficient Ability

Functional Prerequisites and Moderator Variables for Rule Activation

1. Cue recognition. The subset of stimuli to which individuals and society give psychological attention may be labeled cues (Shull

and Del Beque, 1964). Just as rules are embedded in higher order rule structures (e.g. episodes, relationship systems),cues similarly exist on different levels. Their function is to reduce the range of alternatives available to actors such that a standardized cue should call into play a standardized response (Cappella, 1972; Adler, 1978).

Cues may come in many forms (e.g. environmental, verbal, non-verbal). The actor who has repeatedly instantiated a given rule in his/her behavior bypasses a lot of unnecessary cue information. It is deemed unnecessary because it is perceived as redundant (Langer, et. al., 1978). Thus, familiarity with the cue is so great that information processing stops once its recognizable features have been perceived.

If correct cue information is not available to an actor, he/she is likely to misconstrue antecedent conditions which would result in rule enactment being blocked, although some other rule enactment might occur (Wilson, 1970). Failure to enact a rule because of a misconstrual of antecedent conditions could be attributable to "noise" either inherent in the environment or the actor. For example, the contextual cues might not be prominent, clear, salient, and/or standardized. Or, the actor's ability to mediate reality in terms of receptivity to cue information may be lowered as a result of insufficient socialization, or a tendency towards stimulus distraction or overload (Schwartz, 1977). Any one of the above variables could be responsible for blocking rule enactment.

2. Sufficient rule knowledge such that a rule is activated as part of the behavioral choices. Once cues have been apprehended, one goes beyond the information given to the "inference of identity" (Bruner, 1964). That is, one infers an object or event possesses the properties characteristic of membership in a category. Rule knowledge may be considered isomorphic with an a priori category system to the extent that membership in a category implies behaving in some characteristic way. For example, given the presence of certain environmental cues, the presence of certain objects, modes of dress, facial expressions, etc., I infer that the event before me is a funeral, ergo, it is appropriate to grieve, to offer condolences, to wear black, to show respect for the deceased, etc.

The cognitive retrieving of one or more rules may be termed activation. Following Schwartz (1977; p.225) activation means a "directing of attention to expectations sufficient to bring them into th stream of information processing. . .not necessarily. . .where the individual becomes self consciously aware that he is considering them." When an actor is cued, a determination is made regarding possible responses one might make in that situation as well as possible responses others might make. It is this cognitive scanning of one's repetroire which may result in the calling up of one or more rules. Obviously, if a rule failed to be activated, rule enactment would be blocked.

Failure to enact a rule because the rule was not activated could be because the actor lacked knowledge of the rule, or when to activate the rule (Cronen, 1979), the actor failed to retrieve the rule from his/her memory structure, the rule was not well

articulated in the actor's own mind, or the rule did not specify behavior sufficiently for the actor.

3. Near optimal level of motivation. The power of rules is manifested in the intensity of feeling an individual experiences with regard to the performance of specific behaviors. Under conditions of rule activation, the actor automatically experiences greater pressure to perform a particular action even though several others may also be appropriate. The usual cost-benefit analyses of action alternatives is foregone because it has already taken place at some previous time. When the actor defines this situation to be liked the last (as is the case with mindless behavior), the motivation to respond in the same way naturally follows. Quite often the original reason for conforming to a given rule (e.g. in order to maximize rewards or avoid punishment by oneself, reference groups, or the culture is forgotten and habit takes over.

Failure to enact a rule as a result of a lack of motivation may be because there was a weak enforcement mechanism, a competing rule mechanism whose motivation to enact was stronger, or an overall personality disposition that rejects acting in standardized ways.

4. Sufficient Ability. Obviously, unless an actor has the capabilities to meet the performance requirements of a rule, enactment would be blocked. But the performance requirements call for competencies that go beyond that which may seem obvious (e.g. being physically able to enact the rule). This is because rules of lower order complexity are usually embedded in rules of

higher order complexity (Toulmin, 1974). Thus, at the very least an actor must know and be able to use rules of grammar, rules of meaning on personal, interpersonal and cultural levels, as well as rules of coordination. It follows that rule enactment would be blocked if the actor lacked knowledge or ability to use a set of alternatives available for message construction and interpretation, a stable set of relevant standardized usages, and the basic indicators of understanding, to name only a few (Cappella, 1972).

Functional Prerequisites and Moderator Variables for Rule Construction

1. Capacity to engage in complex information processing which includes:
   a. Increased attention to cue information
   b. Availability of extra-communication sources of information
   c. Ability to feedback information

a. Increased attention to cue information. Under conditions of rule activation, a lot of cue information is bypassed because it is presumed to be already known. However, when a rule is under construction there is usually a certain amount of indeterminacy and uncertainty associated with matching a specific situation to more general rule, value, and sentiment structures. From information theory, we know uncertainty reduction is accomplished through information accumulation. Therefore, more of the available cue information should be processed and combined in complex ways even though it may still be below the level of awareness.

b. Availability of extra-communication sources of information. At more complex levels of information processing, there is a decreased reliance on external conditions to generate "alternate

patterns of interaction and new schemata" (Schroeder, et. al., 1975). This translates to more available extra-communication sources of information. Complex information processing calls for complex ways of going beyond available information like learning probabilistic relationships between events belonging to various classes and manipulating these classes through the use of formal coding systems (Bruner, 1964). The cognitive anticipation of future outcomes is one such example. Schwartz's (1977) work on altruism provides another. Not only must an individual perceive a person in a state of need, but an awareness of possible harmful consequences must occur, as well as a recognition that something must be done to relieve the need, a recognition of one's ability to provide relief as well as an apprehension of some responsibility to become involved in the situation.

c. Ability to feedback information. Since rule construction processes are emergent and tested through exploratory behavior, a feedback mechanism is necessary so that the system may check itself. This feedback mechanism refers to actual behavioral feedback as cognitive exploratory processes would constitute another form of going beyond the information given. A feedback mechanism may alter actor's behavior and thus allow him/her to adapt to environmental demands better. Clearly, the adaptability of the rule constructing actor is much greater than the rule activating actor when the situation becomes complex and changing.

Several moderator variables suggest themselves in addition to the ones cited under this condition for rule activation processes: the degree of cognitive complexity, ability to role-take, as well as various extra-communication sources of information as one's

attitude towards the rule, the perception that rule enactment will be confirmed by others, the perception that rule enactment will assist in meeting one's goals, the perception of rule congruity, the subjective evaluation of the competence of the other interactant, etc.

2. Sufficient rule knowledge such that a rule can be constructed from hierarchical rule structures. Another extra-communication source of information necessary for rule enactment are more general hierarchical rule structures. Belief systems in general are characterized by vertical and horizontal structuring (Bem, 1970). Values and norms are linked vertically and horizontally at given levels of abstraction (Rokeach, 1973).

Schwartz (1977) views the process of norm construction as a surveying of more general norms or values which yields one or more momentary, situated self-expectations. The situated construction of a rule would be blocked if more general rule structures were not activated by the actor. This could be because the actor lacked knowledge of more general rule structures, when to activate such structures, how to construct situated expectations from such structures, or failed to perceive the relevancy of certain rule structures. The more general rule structures could also be too vaguely defined, only partially applicable, or provide inadequate implications for behavior.

3. Near optimal level of motivation as a result of goal directedness. Action theorists argue that what distinguishes humans from other organisms is their capacity to act in a purposive manner.

The logic of such action theory models as the practical syllogism (vonWright, 1971) rests on the notion that the practical force or motivation to enact a rule depends on the strength of one's intentions or the consequences following goal achievement (Cushman and Pearce, 1977). Since actors anticipate and evaluate the cost and benefits of possible consequences following goal achievement, the action which maximizes rewards and/or minimizes costs on the criterion one deems relevant to judge outcomes (e.g. social, physical, moral, etc.) usually yields the greatest pressure. For example, Schwartz (1977) argues that alternative actions which are evaluated simultaneously yield differential degrees of pressure because they differ in their implications for the person's structure of norms and values. One would expect those rules which have been internalized and considered central to one's value structure to exert stronger pressures on the individual.

Rule enactment would be blocked if there was a weak enforcement mechanism, a lack of a sufficient reward structure, or decreased psychological proximity to a rule. This latter factor could mean lowered identification with a generative mechanism, lack of centrality in a network, decreased affect towards a rule, a change in affect towards a rule (as when defense mechanisms are activated), competing goals or multiple means to those goals.

4. Sufficient ability. When discussing sufficient ability for rule activation, it was suggested that certain underlying competencies are embedded in the performance requirements of a rule. They involved knowledge and ability to use: 1) rules of grammar, 2) rules of meaning on several levels, and 3) rules of coordination.

Obviously, good communication requires considerable competency. This is especially true when the actor is engaged in the situated construction of a rule or rule sequence because coordination demands are usually higher. Coordination situations function to regulate consensus among individuals with regard to a common task (Cushman and Pearce, 1977). Coordination demands increase because actors must adjust to each other under more uncertain conditions (i.e. the rules are less specified). Further, actors are usually more aware that they must adjust to each other which increases the likelihood of performance pressure. As a result, competence in this area is especially important.

Rule enactment would be blocked for the same reasons discussed for sufficient ability under rule activation.

The above provides a structure for doing rules research. Specifically, researchers were advised to locate the complexity of their rule phenomena and reconstruct the functional prerequisites to rule enactment so that testable relationships may proliffer. There is every reason to expect that the moderator variables will be person-oriented, situational, and often a combination of both. If there is anything to learn from the debate over situationism vs. trait psychology, it is that situations are as much a function of the person as the person's behavior is a function of the situation (Bowers, 1973). While rules specify behaviors appropriate to given situations, they may be embraced with different degrees of commitment and they will not all be embraced universally at the same time. This is entirely consistent with the recommendations set forth at the beginning of this paper which suggested that

studying situational influences on behavior is not inconsistent with a teleological position. So long as the individual is treated as an active perceiver and mediator of situational influences, a telic perspective is maintained.

To conclude this paper here would be to implicitly support the view that all an investigator need do is to find some intervening variable, and divide his/her sample according to where subjects locate on that dimension. This assumes that the moderator variable will be universally applicable to all. Such nomothetic assumptions lay the basis for our research tradition and are partly responsible for low validity relationships. Thus, it is still possible for a researcher to locate a set of moderator variables and still have low validity coefficients because the variables may not be relevant for all of his/her sample or different degrees of that phenomena may scale differently for subjects thant for investigators.

Bem and Allen (1974) urged researchers to come to grips with the "idiographic facts of life" by making some concessions if one truly wants to improve predictability. These concessions can range from letting the sample determine the relevant variables, doing additional testing to insure that the investigator's scaling is consistent with the sample's, or at the very least, deleting that portion of the sample for whom the predictors do not apply.

Bem and Allen point out that an idiographic approach to assessment is not in conflict with the goals of science to construct general nomothetic principles. Indeed, nomothetic principles are best constructed after a comprehensive period of idiographic assessment.

Conclusion

This paper set out to do three things. First, current scientific methodology was shown to be consistent with a teleological view of human behavior. Second, the moderator variable approach was suggested as a method that captures the contingency-like nature of rules. Third, a structure for doing rules research was offered as a way which uncovered theoretically relevant, intervening variables.

For a variety of reasons, there is an inclination to study rule phenomena after-the-fact. While this researcher does not dismiss the utility of post-hoc, descriptive endeavors, its explantory power is lacking. Rules reasearch should not be governed by a particular methcd - and that includes the one elaborated in this paper. Diversity in method is required and it is in that spirit that this paper is offered.

Notes

[1]The use of the term "parametric" is synonomous with the practices of current scientific methodology.

[2]There is a recent exception. See Vernon E. Cronen, W. Barnett Pearce and Lonna B. Snavely, "A Theory of Rule-Structure and Types of Episodes, and a Study of Perceived Enmeshment in Undesired Repetitive Patterns," paper presented to the annual convention of the International Communication Association in Philadelphia, May, 1979.

[3]Although Pearce has recently allowed the notion of a "field dependent predictability." W. Barnett Pearce, Personal Communication, May 3, 1979.

[4]These prerequisites were generated from a survey of relevant literature including Shull and Del Beque (1964), Cappella (1972), Schroder, Driver, and Streufert (1975), Schwartz (1977), Schwartz and Howard (In Press).

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